

What is claimed is:

1. A method for switching over between a working channel and a protection channel in an ATM network comprising the steps of:

indicating in a cell for transmission whether a connection of said cell is object for a switchover;

duplicating said cell at the unit of a connection;

transmitting the duplicated cells simultaneously to a working channel and a protection channel;

indicating whether each cell belongs to a connection currently in a working state; and

selecting a received cell which is included in the connection in a working state.

2. A method for switching over between a working channel and a protection channel according to claim 1, wherein a cell having an indication of a connection currently not in a working state is discarded.

3. A method for switching over between a working channel and a protection channel according to claim 1, wherein an indication whether said cell for transmission is included in a connection object for a channel switchover is provided in said cell at the unit of a connection group.

4. ATM switching equipment having a switchover function

between a working channel and a protection channel, said ATM switching equipment comprising:

5 a demultiplexer having functions of indicating in a cell for transmission whether said cell is object for a switchover, duplicating said cell at the unit of a connection, and transmitting the duplicated cells simultaneously to a working channel and a protection channel; and

10 a line interface means for selecting a received cell according to the indication whether said cell is included in a connection currently in a working state.

15 5. ATM switching equipment according to claim 4, wherein said cell having an indication of a connection currently not in a working state is discarded.

20 6. ATM switching equipment according to claim 4, wherein an indication whether said cell for transmission is included in a connection object for a switchover is provided in said cell at the unit of a connection group.

7. ATM switching equipment provided in an ATM network node comprising:

25 a means for duplicating a cell at the unit of a connection; a means for transmitting the duplicated cells simultaneously to a working channel and a protection channel; and

a table for indicating, at the unit of either a connection

or a connection group, whether a received cell is included in a connection currently in a working state using an ACT bit provided in a cell header,

5 enabling to select a received cell referred to by said table according to the indication whether said received cell is included in a connection currently in a working state.

8. ATM switching equipment according to claim 7 further comprising:

10 a means for invalidating a received cell referred to by said table in the case said cell has an indication of being included in a connection currently not in a working state.

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